AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

WELLNESS AT AIR COMMAND AND STAFF COLLEGE: IMPACTING TOTAL FORCE READINESS THROUGH TOMORROW'S LEADERS

by

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Preface

This research project was undertaken to provide Air Command and Staff College (ACSC) leadership with analytical information to assist them in making informed decisions on the future of a wellness program within their organization. Health promotion and wellness have been specialized areas of interest for me throughout my Air Force career. Now as an ACSC student, I feel strongly that the proven concepts have significant worth in this environment. Although sincerely addressed, the real question should not be whether or not a wellness program is important and worthy of implementation. Rather, what type of program is most appropriate for this unique population and how can it be achieved? The value of this research is potentially twofold. It can directly impact ACSC leadership, faculty, students (and their families), and indirectly impact the thousands of military personnel that these people will influence while in future leadership positions—a valuable contribution to total force readiness! An additional application may be in support of the Air University goal to promote an educational continuum across all levels of professional military education.

I would like to thank Dr. Marlin Moore for his outstanding support and assistance as my research advisor and for his contributions toward introducing wellness into ACSC. My appreciation is also extended to the Air University Library staff for their invaluable services and to the many individuals who responded to my numerous requests for information and resources.

Abstract

Maintaining the health and fitness level of the Active Force is an important factor contributing to mission readiness. As leaders and future leaders within the military services, the Air Command and Staff College (ACSC) faculty and students are prime candidates to demonstrate and deliver this vital message to the field. Based on conceptual research, this project describes the premise for implementing a comprehensive wellness/health promotion program at ACSC. Current literature suggests that this type of program, if well executed, has the potential to provide many tangible and intangible benefits. Various wellness program models are investigated and the research question focuses on identifying the model that would potentially have the most significant impact on the target population. The findings and conclusions strongly support the importance of such a program from the strategic and operational levels, and suggest that a worksite-based (corporate-executive model) approach would be most appropriate at the tactical level.

Chapter 1

The Wellness Connection

Maintaining the "Fighting-Edge" means more than good training and equipment, it means good health.

—Health Promotion Workshop, 1992

Introduction and Background

The Persian Gulf War and increasing military operations other than war (MOOTW) such as Somalia, Haiti, and Bosnia, remind us that the military has both wartime and peacetime missions. Mission accomplishment has always required a capable and effective force able to function in demanding environments and circumstances. However, the strategic environment is changing and Secretary of Defense William S. Cohen indicates that, "We need ready forces in a world of sudden events that often will demand that our forces come 'as you are' on a moment's notice." The military has a primary responsibility to its personnel to maintain and promote a high state of military/combat readiness. "The consequences of failing are too severe for us to forget this basic truth." In addition, congressional directives and continued fiscal restraints imply that Congress and the American people expect the Department of Defense (DOD) to maintain a quality defense program within a constrained resource environment. This requires the services to manage their allocated resources even more astutely, to get the "most bang for their buck."

The DOD recognizes that health and fitness (wellness) are key components to both readiness and cost containment, and thus has made a variety of attempts to promote these issues through

policy and various operational programs. Current literature reviewed below clearly delineates the positive impact of organizational wellness programs on improving the health, productivity, and individual well being of employees with financial benefits alone far exceeding the costs. Nevertheless, despite steady and notable progress by the military in some areas of wellness, many challenges still exist.

It is the thesis of this research project that to make theory become reality for the DOD, it is necessary for military commanders and leaders to understand and embrace the concepts of wellness and fitness, as well as role model them by their own actions. From that, two research questions follow: First, if the thesis is supported, is Air Command and Staff College (ACSC), the United States Air Force's Intermediate Service School for professional military education (PME), an appropriate environment in which to prepare future leaders for this vital role? If so, the second research question is what type of health promotion program model would be most appropriate to accomplish this objective (thesis)?

Using a conceptual research approach, an extensive review of the related literature (civilian and military) was conducted to defend or refute the project thesis and answer the research questions. Three limitations of the study were noted. First, availability of published literature was scant in relation to the military population and extensive in relation to the civilian population. Second, rigorous evaluations of wellness programs were rare in either setting, making absolute determinations of impact impossible. And third, the majority of studies that performed evaluations reported only relatively short-term outcomes (normally less than five years from date of intervention); long-term results were not yet available.

The findings and accompanying analysis of this project are organized into four parts. This chapter provides an overview of why wellness/health promotion makes sense from both a

personal and organizational/business perspective and gives a brief history of the wellness/health promotion movement. Chapter two interprets specific studies in relation to health and cost outcomes of wellness/health promotion programs. The program models/types that are frequently used to operationalize health promotion in both the civilian and military environments are described. Chapter three focuses on the relationship of wellness to readiness, and ultimately leadership, and presents the relevance of this study to the ACSC population. Finally, a summary of the study results and accompanying recommendations are provided in chapter four.

For the purpose of this report it is important for the reader to note that "health promotion" and "wellness," although technically defined differently (see Glossary), are used interchangeably. Simply put, these terms refer to the combination of processes that lead to the adoption of healthy behaviors by an individual or group which, in turn, produce a higher state of health for the individuals and the organization.⁴ On the contrary, "fitness" (or physical fitness) is not an interchangeable concept with the above terms; rather it is only one positive health behavior promoted in health promotion/wellness programs.

Just the Facts

According to the Centers for Disease Control and Prevention (CDC), making changes in individual behaviors could prevent approximately 50 percent of all premature deaths in the United States.⁵ Up to 70 percent of all illness and premature death are preventable and caused by poor lifestyle choices.⁶ This translates into nearly one million Americans every year prematurely killing themselves through their own unhealthy habits; primarily smoking, lack of exercise, poor diet, alcohol abuse, and unmanaged stress. The elimination of tobacco use alone could prevent more than 400,000 premature deaths annually (from cancer, heart and lung diseases, and stroke). Amazingly, this is more than the total number of American lives lost in all wars during the

twentieth century.⁷ Longitudinal studies and epidemiological research have shown that poor dietary patterns and sedentary lifestyles/physical inactivity play consequential roles in many of the major diseases like heart disease, stroke, diabetes, and cancer.⁸ In addition, recognition and control of high blood pressure and elevated blood cholesterol levels have been proven to protect against heart attacks and strokes.⁹ However, 90 percent or more of men who have suffered a myocardial infarction ("heart attack") have one or all of the identified risk factors: elevated cholesterol levels, tobacco smoking, and elevated blood pressure.¹⁰ Morbidity may be the worst case scenario and certainly is the most publicized. Hence, what statistics rarely show is the additional numbers of people who live with chronic diseases or disabilities that they acquired from unhealthy lifestyles. Not only is their quality of life severely affected, so is that of their loved ones.

The financial cost of treating the aforementioned disease processes accounts for 70 percent of America's total health care expenditures, which is approximately \$1.0 trillion per year and estimated to be \$1.5 trillion by the year 2000. Heart disease and strokes alone cost more than \$135 billion each year. The annual health care and related costs attributable to tobacco use exceed \$65 billion, and alcohol abuse \$98.6 billion. These financial figures do not even include the economic burden resulting from losses in productivity, higher payments for health insurance, disability and sick leave. From a corporate view, the average medical costs per employee are estimated to rise from \$4,000 in 1992 (consuming 50 percent of average corporate profits) to \$12,000 by the turn of the century.

Despite the overwhelming impact on the pocketbook and the mounting scientific knowledge, only three percent of total health care dollars are spent on disease prevention and health promotion.¹⁴ Within the DOD, only one percent of health care dollars is spent on

prevention, while 99% continues to be spent on treatment.¹⁵ More discouraging may be the fact that preventable conditions and deaths continue to occur despite the available evidence that reveals high-risk type behaviors and the actions that individuals can take to avoid or control these. A few classic examples follow. Based on the *1995 Department of Defense Survey of Health Related Behaviors Among Personnel* (1998 survey in progress), 31.9 percent of active duty military personnel smoked and 13.2 percent used smokeless tobacco.¹⁶ Although a significant decrease from 1980, this habit alone creates direct health care costs for DOD of \$584 million. An additional indirect cost of lost productivity from sick leave and smoke breaks was estimated at \$346 million.¹⁷ In comparison, the civilian population consumption of cigarettes is lower at 26 percent and smokeless tobacco products at 6.9 percent.¹⁸

The same survey reported declines in overall alcohol use and alcohol-related serious consequences, yet heavy drinking remains problematic with rates significantly higher than the nation's civilian population. Nearly a quarter of military personnel reported common use of alcohol to cope with stress, daily pressures, and feelings of depression. The most frequently indicated stressors were separation from family and deployment. With decreasing forces and an increasing operations tempo these stressors cannot be expected to lessen and may actually intensify. Top executives of civilian companies also ranked stress as one of the leading health concerns in their workforces. Although, considerably less than civilian counterparts, illicit drug use in the military population was reported as still occurring at a rate of three percent. 21

In 1992, more than 60 percent of DOD personnel reported engagement in regular strenuous physical exercise for 20 minutes or more at least three times a week.²² In contrast, the *1996 Surgeon General's Report on Physical Activity and Health* reported that more than 60 percent of American adults are not regularly active, and 25 percent are not active at all.²³ Although these

numbers favor the military population, they still may not be adequate for the profession of arms. Prior to the improvements made in the United States Air Force (USAF) basic training physical conditioning program in 1994-1995, evidence indicated that airmen were not physically fit upon graduation.²⁴ A November 1987 survey of Air War College (AWC), ACSC, Squadron Officer School (SOS), and the Senior NCO Academy reported that 45.5 percent of respondents did not consider the Air Force's existing physical fitness standards and programs sufficient to produce a combat-ready force; and an additional 28.4 percent were uncertain.²⁵ Though all services require at least annual fitness evaluations for all of their members, data was only found on the Air Force. A 1995 report indicated that out of the 80 percent of USAF personnel measured using cycle ergometry, 81 percent met the fitness standards.²⁶ Reports from the General Accounting Office (GAO), the investigative arm of Congress, indicated substandard fitness levels among reservists of all services within the DOD.²⁷

Other areas of poor health behaviors among DOD personnel included 19 percent of personnel under age 20 and 16.7 percent over age 20 were overweight based on the Body Mass Index.²⁸ Remarkably improved, 76.3 percent had their blood pressure checked within the past two years and 60 percent had their cholesterol checked within the preceding five years. Less encouraging, only 49.3 percent of those identified with a history of high blood pressure had actually taken positive actions to control it. Comparatively, the CDC reported one-third of all American adults as overweight.²⁹ Other studies reported that 87 percent of civilians had their blood pressure checked and 80 percent of those identified with high blood pressure had taken actions to control it. Sixty-four percent had their cholesterol checked.³⁰

Paradigm Shift

The CDC reports indicated that these rates of health-related behaviors, as well as others not specifically addressed in this study, have been showing improvement overall.³¹ Additionally, national statistics show remarkable declines in deaths related to strokes and heart disease, among others.³² This has been attributed to the gradual shift of national emphasis towards prevention and health promotion. Historically the relevance of prevention to society in general was first acknowledged in the 1960s and 1970s. Prior to this, illness and disease were accepted as the norm and the focus of health care and national health policy was on treatment. Primarily educational programs were initiated by the Surgeon General, private and public organizations, typically focused on reducing risk factors for the U.S. population at large.

Beginning in 1979, the Federal Government adopted a national health agenda to take steps to prevent unnecessary disease and disability and to achieve a better quality of life for all Americans. Since that time, numerous key publications and health intervention efforts have followed from a wide variety of sources; the terms "health promotion" and "wellness" have become buzzwords. A single nominal event was the compilation and publication of *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* by the Public Health Service in 1991. This document detailed health goals and programs to be accomplished by the year 2000 and attempted to create a cooperative effort among individuals, families, communities, health professionals, the media, and the federal government to share in the responsibility.³³ Priority areas included physical activity and fitness, nutrition, tobacco use, alcohol and other drug use. Recent health promotion efforts have begun to focus more on specific populations. The implementation of organizational (worksite) wellness appears to be making the most notable impact and is further discussed in the next chapter.

The Military Revolution

Just as these compromising health behaviors and the role of prevention became of relevance to society in general, they also became of interest and concern to the DOD for a number of reasons. First and foremost, poor health practices and substance use/abuse can interfere with the DOD mission of maintaining a high state of military readiness among the Armed Forces. This may result from poor individual and unit preparedness and/or morale, or impaired work performance. In addition, poor health behaviors that military personnel maintain during their time on active duty can lead to the kinds of chronic diseases described above. Outcomes directly effect rates of productivity, absenteeism, retention, and overall health care costs. High-risk behaviors may also have a direct or indirect impact on family members, roommates, close friends, peers and subordinates.

For these reasons, the DOD has placed increased emphasis on health promotion since the late 1970s and early 1980s. Prior to this timeframe, social norms within the military tended to encourage bad health behaviors/habits (i.e., primarily tobacco and alcohol use). Initially, a series of DOD regulations were issued on the topics of concern most easily tied to readiness, basically fitness (Note: Fitness has always been considered a hallmark of the military and was addressed even prior to this time), weight management, smoking, and alcohol/drug abuse prevention. These early instructions were generally focused on adherence to performance standards rather than on health risk reduction or health promotion activity. The second standards rather than on health risk reduction or health promotion activity.

In 1986, the DOD established its first formal, coordinated, and integrated health promotion policy (DOD Directive 1010.10) and the true revolution began. Its purpose was to "improve and maintain military readiness (of both active and reserve forces) and the quality of life of DOD personnel and other beneficiaries." The directive indicated that military services and their

members have a joint responsibility to maintain an optimal state of health and well being. Based on the published scientific data, six broad program areas were identified for intervention: smoking prevention and cessation, physical fitness, nutrition, stress management, alcohol and other drug abuse prevention, and prevention of hypertension (high blood pressure). Furthermore, a series of recurrent surveys were initiated to obtain evaluation data to guide evolving programs and policies. Limitations recognized were the potential for inaccuracy when using self-reported data and inconsistent survey methods making comparisons and trending difficult.³⁸

The separate service agencies were tasked with establishing their own comprehensive health promotion programs to meet the distinctive needs and problems of their members. In the years that followed, a series of service regulations were published to define and refine their individual health promotion efforts. Currently, the Air Force follows AFPD 40-1 and AFI 40-101, the Army AR 600-63, the Marine Corps MCO 6200.4, and the Navy SECNAVINST 6100.5 and OPNAVINST 6100.2. This shift towards prevention has required reorganization from headquarters levels on down, reallocation of resources and funding, and an entire paradigm shift in thinking for military leadership, individuals, and the military healthcare system. The actual implementation process remains ongoing today for all services.

Moreover, to be consistent with the recommendations set forth in *Healthy People 2000*, the DOD identified a subset of objectives of most relevance to the military in *Promoting Health 2000: DOD Health Promotion and Disease Prevention Objectives* (May 1992).³⁹ Comparatively, the intent was to focus attention on specific high-risk behaviors within the military population and strive to make changes to achieve the preset goals prior to the year 2000. According to the *1995 DOD Survey of Health Related Behaviors Among Personnel*:

Good progress has been made by the Military in a number of areas, but it faces considerable challenges in meeting the targets set in all areas by the year 2000.

The areas where targets were met are those where military regulations help ensure compliance with desired behaviors. It is likely to be more challenging to reach the targets in other areas where change is more dependent on the initiative of individuals. The largest gaps and greatest challenges will be to meet objectives for smoking, smokeless tobacco, blood pressure screening, controlling high blood pressure, reducing injuries that require hospitalization . . . In addition, the fact that the Military may have met a *Healthy People 2000* objective in 1995 may not guarantee that it will continue to meet this objective in subsequent years. ⁴⁰

Most recently, the DOD has placed a renewed emphasis on physical fitness. "Operation Be Fit" is the latest initiative, being designed with the goals to improve physical activity opportunities and to encourage participation within the entire military community. The ultimate objective is to establish the DOD as a model for the nation in promoting physical fitness among employees and their families.⁴¹

In summary, a transformation is in process nationwide and the military is not exempt, nor does it want to be. Based on its national security mission, the DOD needs and desires all of the benefits the United States Surgeon General and leading health agencies say are possible through healthy lifestyle changes. While off to a good start, there still remains opportunity for improvement among the military population. All levels of the military structure (strategic, operational and tactical) are necessary players. The current prevailing trend in both military and civilian institutions, which hold a vested interest in the health and well being of their people, is the use of comprehensive wellness programs. Whereas the theory behind these programs is similar for both sectors, actual approaches to program style and management tend to differ somewhat from one organization to another. The next chapter provides a review of research studies that measured health and cost outcomes of these types of programs. Various program models frequently used, and their potential advantages and disadvantages, are discussed for further application to this study's thesis and research questions.

Notes

- ¹ Hon. William S. Cohen, secretary of defense, "Report of the Quadrennial Defense Review," *Joint Force Quarterly (JFC)*, Summer 1997, 9.
- ² Gen Ronald R. Fogleman, chief of staff, U.S. Air Force, "Military Readiness and Medical Care: A Service Chief's Perspective," address to the Department of Defense TriCare Conference, Washington D.C., 13 January 1997.

³ Cohen, 9.

- ⁴ Healthy, Wealthy & Wise: Fundamentals of Workplace Health Promotion, 3rd ed. (Omaha, NE: Wellness Councils of America, 1995), 19.
- ⁵ U.S. Department of Health and Human Services, *Healthy People 2000: Midcourse Review and 1995 Revisions* (Washington D.C.: Public Health Service, 1995), 3.

⁶ Healthy, Wealthy & Wise, 23.

- ⁷ Michael P. O'Donnell and Jeffrey S. Harris, *Health Promotion in the Workplace*, 2nd ed. (Albany, NY: Delmar Publishers, Inc., 1994), 8.
- ⁸ Danuta Kasprzyk and Crystal Freeman [Battelle Centers for Public Health Research and Evaluation], "Best Practices in Health Promotion," Technical Report, Version 1 (Brooks AFB, TX: Office for Prevention and Health Services Assessment (OPHSA), March 1997), 80 and 92.

⁹ Healthy People 2000: Midcourse Review and 1995 Revisions, 4-5.

Lars Wilhelmsen, "Book Review--Prevention of Myocardial Infarction," *The New England Journal of Medicine*, vol. 336, no. 5 (30 January 1997): 383.

¹¹ Healthy, Wealthy & Wise, 23.

¹² Healthy People 2000: Midcourse Review and 1995 Revisions, 5.

¹³ Healthy, Wealthy & Wise, 23.

- ¹⁴ Bernard J. Sullivan, "Program Takes Wellness to a Higher Level," *San Antonio Business Journal*, vol. 11, no., 30 (5-11 September 1997): 36.
- ¹⁵ Col Carlisle Harrison Jr., 42nd Medical Group commander, and Capt Teresa R. Birmingham, 42nd Medical Group health promotion manager, "Health Promotion Working Group," slide presentation to 42nd ABW commander and staff, Maxwell AFB, AL, Fall 1997.
- ¹⁶ Robert M. Bray, et al., 1995 Department of Defense Survey of Health Related Behaviors Among Military Personnel, RTI/6019/06-FR (Research Triangle Park, NC: Research Triangle Institute, December 1995), ES-1 ES-2.

¹⁷ Harrison and Birmingham.

¹⁸ U.S. Department of Health and Human Services, *Healthy People 2000 Review 1997*, DHHS Publication No. (PHS) 98-1256 (Washington D.C.: Public Health Service, 1997), 50.

¹⁹ Bray, et al., 1995 Department of Defense Survey, ES-4.

²⁰ Healthy, Wealthy & Wise, 24.

²¹ Bray, et al., 1995 Department of Defense Survey, 1-14.

²² Ibid.,1-19.

- ²³ U.S. Department of Health and Human Services, 1996 Surgeon General's Report on Physical Activity and Health (Washington D.C.: Public Health Service, July 1996).
- ²⁴ "Air Force Recruit Fitness Study" (Brooks AFB, TX: OPHSA, 1995); available from http://www.ophsa.brooks.af.mil/AFRFS/afrfs.htm.
 - ²⁵ Russell W. Ramsey, "Fitness and Warfighting," Air Force Magazine, April 1990, 106.

²⁶ Kasprzyk and Freeman, 12.

Notes

- ²⁷ William Matthews, "How Fit Are Reservists?" *Air Force Times*, vol. 54, no. 45 (13 June 1994): 24.
 - ²⁸ Bray, et al., 1995 Department of Defense Survey, 3-9.
 - ²⁹ Healthy, Wealthy & Wise, 27.
 - ³⁰ Bray, et al., 1995 Department of Defense Survey, 1-21.
 - ³¹ Healthy People 2000: Midcourse Review and 1995 Revisions, 5.
 - ³² Ibid.
 - ³³ Ibid., 2.
- ³⁴ Robert M. Bray, Larry A. Kroutil, and Mary Ellen Marsden, "Trends in Alcohol, Illicit Drug, and Cigarette Use among U.S. Military Personnel: 1980-1992," *Armed Forces & Society*, vol. 21, no. 2 (Winter 1995): 271.
 - 35 Ibid.
- ³⁶ Barbara S. Collins and CDR Susan H. Custis, "Health Promotion in a Shrinking Military: The Call for Structural Integration and a Conceptual Systems Approach," *Military Medicine*, vol. 158 (June 1993): 386.
- ³⁷ Department of Defense (DOD) Directive 1010.10, *Health Promotion* (with changes 1 and 2), 11 March 1986, 1.
 - ³⁸ Bray, et al., 1995 Department of Defense Survey, 2-21.
- ³⁹ U.S. Department of Defense, *Promoting Health 2000: DOD Health Promotion and Disease Prevention Objectives* (Washington D.C.: Office of the Assistant Secretary of Defense for Health Affairs, May 92).
 - ⁴⁰ Bray, et al., 1995 Department of Defense Survey, ES-3 ES-4.
- ⁴¹ "Defense Department Issues 'Operation Be Fit' Logo," *News Release* (Office of Assistant Secretary of Defense), 11 February 1998; on-line, Internet, 17 February 1998, available from http://www.defenselink.mil/news/Feb1998/b021.1998_bt061-98.html.

Chapter 2

Wellness Programs: A Win-Win Situation

Healthy people make healthy organizations—and healthy organizations are more likely to have healthy "profits."

—Bernard J. Sullivan, Human Resource Consultant

Wellness is Good Business

"Overall, most research involving health promotion and disease prevention in the worksite and other clinical sites indicates that such interventions are both health- and cost-effective." A series of three articles, published in *The American Journal of Health Promotion*, reviewed a total of 68 peer-reviewed research studies conducted between 1980 and 1995. All studies examined the impact of a variety of health promotion programs on health and cost, and all but two evidenced positive health outcomes and/or cost benefits. Two other in-depth reviews of the related literature came to similar conclusions that "it is safe to assume that well-designed and effectively implemented worksite wellness programs will be cost-justifiable...and appear to yield corporate benefits that more than match program costs."

Reported risk reduction and behavioral change among employee groups (Johnson & Johnson, Blue Cross/Blue Shield of Indiana, NASA), and other tangible and intangible gains, suggest positive benefits for both employees and employers.⁶ The most frequently cited benefits included improved health habits, reduced work absences due to illness, and reduced health-related costs for the employer, along with improved employee productivity and morale. As a

result, positive cost-benefit ratios were also reported, ranging from 1:1.42 at Dupont to 1:4.24 at Providence General Hospital,⁷ to as high as 1:6.15 at Coors Brewing Company.⁸

Much of the deviation can be attributed to individual studies evaluating different types of programs or populations and/or having utilized different research methodologies. Comprehensive cost-effectiveness studies and full-scale program evaluations were rare; and, few companies had been able to track effects on employee health systematically and logitudinally.

Nonetheless, based on the current data, continued widespread growth of health promotion programs is occurring across the nation.¹¹ The locales of these programs vary from managed care systems to shopping malls to private and public businesses. The area of largest program expansion and the vast majority of positive outcomes cited were related to worksite-centered wellness programs provided to employees. A 1992 study by the Office of Disease Prevention and Health Promotion indicated that 81 percent of companies with 50 or more employees offered at least one health promotion activity.¹² The Wellness Councils of America (WELCOA) estimated 25 percent of American companies as having more comprehensive employee wellness programs in place, and predict that the number will reach 50 percent in the next five to ten years.¹³

Advantages and Disadvantages of Worksite Wellness

The advantages of worksite programs are clearly documented. Since Americans spend more time at work than at any other activity except sleeping, these type programs are the ideal way to impact a high percentage of people.¹⁴ They provide access to the majority of adults, many of whom might not otherwise engage in preventive type programs. As a result of the convenience and accessibility to employees, voluntary participation levels in workplace-based programs were usually reported higher than in community-based programs.¹⁵ Consistent participation is considered the first important step toward successful behavior change¹⁶ While other variables

also influence why human beings make changes in their behavior (e.g., incentives, fear of death/disability, attitudes and perceptions, etc.), they are beyond the scope of this paper.

In addition to improved participation, notable improvements in outcomes have been associated with taking the intervention out of the healthcare setting and locating it where people work.¹⁷ The same report, based on an extensive three-year study of four large companies, concluded that enrolling the "eager" employees into wellness programs is easy if they are provided on-site. Engaging the "reluctant" employees requires a highly supportive environment with one-to-one approaches, both of which are more available in on-site programs.¹⁸ Typically in work settings, co-workers provide human interaction and enhanced social support, which is identified as another key variable sought after for effective wellness programs. Finally, a work environment program can also utilize sufficient pre-existing communication channels and provide the opportunities for wellness personnel to monitor and reinforce positive behaviors.¹⁹ In sum, worksite-based programs have the greatest potential to facilitate positive changes in individual behavior and organizational culture, both of which support the other.

The disadvantages of worksite programs were much harder to find, and impacted the employer more than the employee. Employers encounter up-front costs as a result of providing necessary program staffing and equipment/supplies, and changing or adding facilities. Internal policy changes or other actions may also be required. However, a positive return on the employer's investment is usually anticipated, turning the disadvantage into another advantage.

Wellness Program Models

The specific approaches to worksite wellness programs are proliferating almost as fast as the number of programs.²⁰ "Unfortunately, there is little unequivocal research evidence that any specific health promotion program or strategy is better than another."²¹ A specific program could

be effective in one setting and ineffective in another. Thus, most health promotion guidelines recommend the use of a process to guide a company through the development of a program tailored to meet the needs of its corporate philosophy, goals for health promotion, and employee needs.²² Part of this process includes selecting a health promotion model that provides the framework in which to incorporate various elements of interest or priority. The most frequently used models are described below.

The Traditional (or Medical) Model was the original model and has been largely abandoned because it rarely produced long-term behavior changes. It involves an advice-only approach by a medical professional. People are identified as having high-risk behaviors and are advised to take action to reduce their risks but are not offered follow-up support to assist in changes. Additional services may be available but must be sought out by the individual.

The Health Education (or Awareness) Model is a common approach because it is a relatively inexpensive way to provide contact to a large number of people. Health education classes based on adult learning theory and/or visual displays are provided to increase the level of awareness or interest in a topic. It may or may not accomplish its objective and rarely does the participant change behavior or improve health as a result.^{23,24}

The Risk Reduction (or Lifestyle Change) Model uses a combination of health education, behavior modification, experiential practice, and feedback opportunities.^{25,26} This approach sets lifestyle behavior change as the desired outcome and allows adequate time for actual behavioral change to occur. Wellness counselors are usually available for individualized counseling in this setting. It is more expensive than the previous model and requires professional staff to employ; however, it has a far greater potential for positive behavior change.²⁷

The Supportive Environment (or Full Service Site) Model incorporates the elements of the previous two models plus enhances the learning of positive substitutes for undesirable risky behaviors. This approach involves the creation of an entire work environment that encourages healthy lifestyles, and may require changes in company policies and culture. Motivating and fun group activities are promoted to bond employees and promote the overall health of the organization. This approach provides the employer and employees with the best opportunity to achieve desired results.

Sometimes health promotion models are classified according to the general location in which they are conducted. The three main models include clinical, community-based, and corporate. Any one of them may utilize an approach described above in order to attain the desired objectives. The Clinical Model is typically associated with programs conducted by healthcare providers out of a healthcare facility. They are usually provided during a medical appointment, health checkup, or via a health fair. This model tends to rely on health education/awareness and referrals rather than on appropriate health promotion programs. An existing disadvantage is that people often associate healthcare facilities with illness (versus wellness) or do not feel that they have ready access to them. Additionally, if people are inconvenienced to go to more than one place to receive services, they may not go.

The Community-Based Model is associated with wellness programs that are conducted in a centralized common area that is conducive to the general public and interested participants. This may be a health and fitness club, an organized community prevention program, or wellness programs/classes offered through a local church or youth center, among others. Improving the health of the community as a whole or producing the most good for the greatest amount of people is usually the focus. Providing a social and supportive environment in an easily

recognizable (accessible) location are its biggest advantages. The disadvantages, and barriers to behavior change, are that a separated location and group focus (versus an individual focus) requires highly motivated individuals.

Finally, the Corporate (or Worksite) Model is identified with programs conducted for the employees (may include family members) within a specific organization or company. The approach may be limited or comprehensive; nonetheless, it usually reflects a multi-focused program that is well integrated into the company culture. Provided by trained wellness counselors, it may include an on-site exercise facility (or off-site contract with fitness club) and health assessment area in addition to the health education and training facilities. A spin-off from this model is the Executive Model, which is geared toward a specific professional level population such as the CEO and top/mid-level managers. Directly accessible facilities with a flexible schedule and staff are provided, and intended to attract educated individuals who typically experience minimal free time and who often experience increased job pressures and stress. The numerous advantages and few disadvantages of worksite wellness programs have been highlighted previously and can be applied to both models.

A wide variety of programs and services can be offered under any given model using the conceptual framework established. However, the most frequently targeted areas include: exercise, nutrition, tobacco use, cardiovascular health, early detection of cancer, clinical preventive services, and low-back injury prevention.³¹ Additional topics are usually added based on the risk profile or the interests of the targeted population, and the organization's goals.

Uncle Sam Joins the Wellness Club

A technical report, "Best Practices in Health Promotion," sponsored by the USAF Office for Prevention and Health Services Assessment (OPHSA), stated that their 1994-1997 "study

evidence showed that DOD health promotion efforts were in line with efforts in the civilian sector and in some respects surpass them."³² Out of the sites they reviewed, 92 percent had performed some form of evaluation (primarily user satisfaction with program elements) and none had performed cost-effectiveness or health outcome studies. Also, the author was informed of several military sites performing data collection for evaluation. However, few other published research studies/reports were found that evaluated the impact of health promotion programs within any military populations. It appears that, not unlike many other institutions, the DOD relied on the plethora of civilian sources and information to provide the support for its actions in the health promotion arena.

As written previously, health promotion program implementation was decentralized to the individual services. All services generally address the major high-risk areas and use a combination of health education and other related organizational, social, economic, and healthcare interventions. Beyond these common components, each service has taken a different approach in terms of intensity, program implementation, and targeted risks and populations.

For example, the Marine Corps fully standardized their program and then distributed it to the unit level for action.³³ It frequently relies on mandatory attendance. Using the slogan "Semper Fit—The Ultimate Health and Fitness Club," it focuses each of the health promotion components toward a young, fit (macho) male image—their target population. A similarity is drawn between the importance of caring for themselves as one of their most important weapons.

In contrast, the Army and Navy have largely depended on its medical personnel and facilities to coordinate and provide the program at the installation level. Both appear to be striving to offer programs under the Risk Reduction (Lifestyle Change) Model. Participation is normally voluntary based on self-interest/motivation, but involuntary participation is also

addressed as a result of direct referrals from commanders or healthcare providers. A minimal physical exercise requirement is mandated and incorporated into soldier/sailor duty time. Components of their programs are frequently scattered across fitness, hospital, mental health, and health promotion facilities. This fragmentation is a disadvantage from a program effectiveness standpoint. Accountability for program execution is diminished, overall coordination is difficult, and the segregation causes confusion and extra effort on the part of the targeted population.

The Air Force is unique among the services in that it selected a specific health promotion model under which to implement its program. In January 1996, the Secretary of the Air Force and Air Force Chief of Staff issued a memorandum (Jan 96) and accompanying Programming Guidance Letter 94-8 (Oct 95) directing the implementation of a Health and Wellness Center (HAWC) on every USAF installation. Sources of required resources were specified and implementation timelines established. Though health promotion was assigned to the medical service for implementation, fitness centers and HAWCs were directed to compliment each other's services. Adjunctively, the USAF Surgeon General has developed a "four-pillar approach" to focus the service's health care approach. One pillar revolves around "readiness" and one centers on "building healthy military communities" through prevention efforts and improving the quality of life.³⁴

When fully implemented, the HAWCs are to provide "one-stop-shopping" for health and fitness assessments, awareness, and required prevention intervention programs, and exercise prescriptions.³⁵ Some contain full cardiovascular and fitness training areas (others coordinate with the local fitness center), and kitchens for healthy cooking classes. They also incorporate the style of the Risk Reduction Model. Programs and services are to be extended to all active

duty/reservists/retirees and their families, and assigned civilian employees. If properly implemented and marketed, the advantages of this Community-Based Model are that HAWCs will provide an easily identifiable, inviting, and credible place to go for wellness activities. In theory this is believed to be a good method for eliminating organizational, cultural, and personal barriers to wellness; thus, increasing the potential for reaching a greater number of individuals. In practice, it has been difficult to attract and maintain interested participants. The main disadvantages to this model are that the targeted population size, combined with the extensive programs the HAWCs are directed to provide, are often unrealistic for the assigned amount of staff and resources. As a result, programs are usually a "one size fits all approach" and focused on moderate to large group education, rather than on more effective individualized or small group counseling. The separation of the HAWC facility from the worksite is also a issue, and is likely a reason for decreased participation; some wings attempt to counteract this by placing the HAWC near other frequented facilities (i.e., fitness center, commissary, etc.).

A study was conducted to measure the impact of the HAWC at Wright-Patterson AFB, Ohio.³⁶ More than 50 percent of those who used the wellness center reported decreases in stress and increases in job contentment and life satisfaction. Smoking cessation classes were reported as beneficial, recapturing 530 sick days (2.5 per participant who quit smoking). Participants in all other miscellaneous health programs also reported improvements.

Documented information was only found on one other notable military program. The Air University AWC, the USAF senior service school, provides an outstanding Executive Wellness Program to its 350-member faculty and students (and their families). Based on the Corporate-Executive Model, its activities are centralized and conducted from the AWC Executive Wellness Center, located within the AWC building. The center includes a fitness and cardiovascular

training room, a book/video library, and offices, and has direct access to adequate training and risk assessment areas. The program was specifically designed to appeal to the senior professional officer maturity and interest levels. Content focuses on current health risks for their respective age group and on their key roles as senior leaders, with the potential to effect cultural change throughout the Air Force and DOD. The internally managed program is able to address the unique environment of an academic setting with a short-tour population (e.g., 10-months).

There are three main components to the program, (most of which are optional): an educational curriculum, a health assessment portion, and an interventional series of modules encompassing consultations and group sessions. In all areas, the number of participants has steadily increased since the program inception in 1986.³⁸ Formal course feedback has repeatedly rated the Health and Fitness/Wellness elective in the "effective" to "highly effective" range. Follow-up surveys are sent to alumni approximately two years after graduation. A total of 82 percent of the AY96 group and 84 percent of AY94 indicated they had received positive long-term benefits from the program, compared to 67 percent of the AY92 group.³⁹ In addition, the professional staff (physician assistant and exercise physiologist/fitness coordinator) acts as a valuable resource for other agencies within Air University and local bases.⁴⁰ Per a verbal report, the Army War College has a similar program with positive (unpublished) results.

Contrary to the civilian sector, no other evidence of worksite-based wellness programs within the military was found. However, one research article concludes that DOD directives are sound; but for military services to effectively implement them, all segments of health promotion should be brought to the worksite.⁴¹ Another supported that the DOD needs to view health promotion as a corporate management issue central to organizational administration and

management of human resources, rather than as a medical activity.⁴² No other literature was found that supported any other specific models or approaches for the military population.

In summary, the literature review suggests that wellness is good business both for the civilian sector and for the DOD. All factors considered, there appears to be enough preliminary evidence that health promotion programs are beneficial to both individuals and organizations. The large majority of the studies reviewed documented tangible economic-related benefits. These are a result of reductions in sick leave and absenteeism, use of health benefits, worker's compensation claims, risk of disease and injury, and employee turnover (saving the costs of recruiting and training). Yet the intangible benefits may be even more important to both individuals and organizations alike. They included improvement in productivity, employee morale and self-esteem, employee loyalty and cohesiveness, and employee decision making. For the military, these benefits can be viewed as a force multiplier and translate into enhanced unit, command, and DOD readiness to meet our peacetime and warfighting missions. In addition, reduced healthcare expenditures result in additional funds for operational use.

These findings all hold a specific relevance for military leadership. An integral relationship between the concepts of wellness and readiness, and the role of leadership, are further discussed in the next chapter. As future leaders within all of the military services, the ACSC faculty and students are prime candidates to demonstrate and deliver this vital message of wellness to the field. However, the ACSC population and environment pose some unique characteristics that must be considered prior to determining how to best prepare these key leaders for their new role.

Notes

¹ Kenneth R. Pelletier, "A Review and Analysis of the Health and Cost-Effective Outcome Studies of Comprehensive Health Promotion and Disease Prevention Programs at the Worksite: 1993-1995 Update," *American Journal of Health Promotion*, vol. 10, no. 5 (May/June 1996): 381.

Notes

- ^{2,3,4} Kenneth R. Pelletier, "A Review and Analysis of the Health and Cost-Effective Outcome Studies of Comprehensive Health Promotion and Disease Prevention Programs," *American Journal of Health Promotion*, vol. 5, no. 4 (1991); "1991-1993 Update," vol. 8, no. 1 (September/October 1993); "1993-1995 Update," vol. 10, no. 5 (May/June 1996).
- ⁵ Michael P. O'Donnell and Jeffrey S. Harris, *Health Promotion in the Workplace*, 2nd ed. (Albany, NY: Delmar Publishers, Inc., 1994), 48.
- ⁶ Joseph P. Opatz, ed. [Association for Worksite Health Promotion], *Economic Impact of Worksite Health Promotion* (Champaign, IL: Human Kinetics Publishers, 1994), 233-235.
- ⁷ Wellness Councils of America (WELCOA), "Wellness Works," on-line, Internet, 17 November 1997, available from http://www.welcoa.org/works1.htm.
- ⁸ Francis W. Clifford and Robert J. Diaz, "Wellness On Tap at Coors," *Financial Executive*, March/April 1995, 21.
 - ⁹ Opatz, 233-235.
- Danuta Kasprzyk and Crystal Freeman [Battelle Centers for Public Health Research and Evaluation], "Best Practices in Health Promotion," Technical Report, Version 1 (Brooks AFB, TX: Office for Prevention and Health Services Assessment (OPHSA), March 1997), 37-38.
 - ¹¹ Kasprzyk and Freeman, 4.
- ¹² Healthy, Wealthy & Wise: Fundamentals of Workplace Health Promotion, 3rd ed. (Omaha, NE: Wellness Councils of America, 1995), 21.
 - ¹³ Corporate Wellness on the Rise, *American Fitness*, vol. 15, no. 2 (March/April 1997), 15.
 - ¹⁴ Healthy, Wealthy & Wise, 20.
 - ¹⁵ Ibid.
- ¹⁶Russell E. Glasgow, Kevin D. McCaul, and K. John Fisher, "Participation in Worksite Health Promotion: A Critique of the Literature and Recommendations for Future Practice," *Health Education Quarterly*, vol. 20, no. 3 (Fall 1993): 394-397.
- ¹⁷ John C. Erfurt, et al., "Improving Participation in Worksite Wellness Programs: Comparing Health Education Classes, a Menu Approach, and Follow-Up Counseling," *American Journal of Health Promotion*, vol. 4, no. 4 (March/April 1990): 271.
 - ¹⁸ Ibid., 277.
- ¹⁹Health Promotion Director (HPD) Certification Training Program, 1996 (Dallas, TX: The Cooper Institute For Aerobics Research, 1994).
 - ²⁰ Kasprzyk and Freeman, 4-5.
 - ²¹ Ibid., 5.
- ²² Jean Storlie, William B. Baun, and William L. Horton [Association for Worksite Health Promotion], *Guidelines for Employee Health Promotion Programs* (Champaign, IL: Human Kinetics Publishers, 1992), viii.
 - ²³ Erfurt, et al., 272.
 - ²⁴ O'Donnell and Harris, xiii.
 - ²⁵ Ibid., xiii-xiv.
 - ²⁶ Erfurt, et al., 272.
 - ²⁷ Ibid., 270.
 - ²⁸ Ibid., 272.
 - ²⁹ O'Donnell, xiv.
 - ³⁰ Ibid., xv.

Notes

³² Ibid., 2.

³⁴ Lt Gen Charles H. Roadman II, surgeon general, U.S. Air Force, address to Air Command and Staff College Class of 1998, Maxwell AFB, AL, 27 January 1998.

³⁵ Programming Guidance Letter (PGL) 94-8, "Establishing Health and Wellness Centers" (Washington D.C.: HQ USAF, 1 October 1995).

³⁶ Karen Cooper, "A Healthier, More Fit Force," Sergeants, March 1996, 12.

³⁷ Maj Bruce E. Weaver, "Background Paper on the Air War College (AWC) Executive Wellness Center," 1 May 1997.

³⁸ "AWC (Air War College) Executive Wellness Program Evaluation, AY 1997," prepared by AWC Office of Evaluation, November 1996.

³⁹ "AWC (Air War College) Executive Wellness Program Evaluation, AY 1998," prepared by AWC Office of Evaluation, March 1998.

⁴⁰ Weaver.

⁴¹ LCDR Thomas L. Pokorski, "Worksite Health Promotion: Rationale for Military Implementation," *Military Medicine*, vol.157 (August 1992): 429.

⁴² Barbara S. Collins and CDR Susan H. Custis, "Health Promotion in a Shrinking Military: The Call for Structural Integration and a Conceptual Systems Approach," *Military Medicine*, vol. 158 (June 1993): 389-390.

⁴³ Healthy, Wealthy & Wise, 21.

³¹ Kasprzyk and Freeman, 36.

³³ Marine Corps Order (MCO) 6200.4, *Marine Corps Health Promotion Program: Semper Fit 2000*, June 1997.

Chapter 3

Changing the Culture Through Leadership

Wars may be fought with weapons, but they are won by men. It is the spirit of the men who follow and of the man who leads that gains the victory.

—Gen. George Patton

Wellness-Readiness-Leadership

Based on documented evidence, wellness and fitness can be applied within the military as both a force enhancer and a force extender. With limited resources and the increasing operations tempo, commanders can no longer afford to ignore these concepts, and must focus in on a set of tasks that maximize readiness in minimum time. Wellness (including fitness) may be viewed as the "key" to open the commander's "toolbox," so that all other tools can be maximized for their respective purposes.

Commanders and leaders have many responsibilities to their people. First and foremost, they must take care of themselves and seize every opportunity to reduce their own personal health risks. According to General Omar Bradley, "Leadership is intangible, and therefore no weapon ever designed can replace it." Thus, no leader is good to anyone when they are dead or unable to lead due to physical or mental disabilities. By choice and personal action, good leaders can improve their own health, cognitive and physical capabilities, appearance, and self-esteem. General Matthew Ridgway's observation that, "Only those who have disciplined themselves can

exact disciplined performance from others,"² is applicable here. A strong personal commitment to wellness and fitness is a form of self-discipline that is easily observed by subordinates. Although actions will be believed over words, demonstrating congruency between actions and words is another mark of good leadership.³ It is also an excellent way to gain the respect of superiors, peers, and subordinates.

Leaders are role models and leadership is an influential process.⁴ Within the military structure, most subordinates will naturally look to those in authority for clues on how they should behave. If leaders develop the vision of wellness and believe in the "key" role it plays in mission/combat readiness, others are likely to share that vision. A small number of others will have to be coached or convinced, which can usually be accomplished as followers begin to share in the leader's vision and consider it as their own.⁵ Furthermore, data suggests that perceived support from one's supervisor relates directly to the participation level in health promotion programs.⁶

It is frequently said that the people and mission should remain the top two concerns for a commander. Joint Vision 2010 alludes to this and clearly identifies that "This vision draws on our most fundamental source of strength—our people...at the end of the day, our success, in war or in peace, will rest ultimately on the men and women of the Armed Forces." In this context, the concept of wellness is important. During peacetime, maintaining a high level of wellness will provide active duty members with the tangible benefits described earlier, as well as improve their quality of life (and possibly that of their families). These positive changes will, in turn, provide added benefits to the unit or organization, enhance the accomplishment of the day-to-day mission, and contribute towards overall combat readiness. A healthy and fit lifestyle, compounded with good training, will better prepare troops for the battlefield. Once deployed,

physical strength and stamina, as well as self-confidence and mental toughness, will be essential in combating the seen enemy and the insidious unseen enemies of fatigue, stress, and disease.⁹

According to General Michael Ryan, USAF chief of staff, "Achieving results starts with leadership. Leaders must set the tone and tolerate the possible risks." In this case, leaders should accept the challenge and lead the paradigm shift. They can do this by setting a personal example, making preventive maintenance (health promotion) for their people as important as for their equipment, being a champion for health promotion, advocating for resources, and changing the "culture" within their control. With leadership identified as a "critical node" to this mission-essential process, the hope is that current leaders are already doing their part. However, if they are not, they are very difficult to access and convince at this point in their personal and professional development. This is where ACSC receives its opportunity to make a difference. ACSC faculty and students are in an ideal environment to be "molded and shaped" for this leadership tasking/responsibility.

Application to Air Command and Staff College

Air Command and Staff College prepares field grade officers (primarily majors and major selects) and senior DOD civilian employees to assume positions of higher responsibility within the military and government arenas. More specifically, the ACSC mission statement is "A world-class team educating midcareer officers to lead in developing, advancing, and applying air and space power across the spectrum of service, joint, and combined military operations." The curriculum centers on educating students on the various aspects of the profession of arms, warfighting application during both peace and war, and the requisites of command.

Since ACSC "focuses on shaping and molding tomorrow's squadron commanders and leaders," ¹⁴ the relevancy of a wellness program is apparent. An annual ACSC class size includes

an average of 520 U.S. military officers from the top one-third of all service branches, and includes guard and reservists. With this many new visionary leaders re-entering the force each year, the potential for spreading the wellness message is astounding. The challenge then is to develop an environment where they receive the necessary wellness education skills and are able to apply them from both a personal and organizational perspective.

Prior to AY98, a few ACSC-based health promotion activities were sporadically offered by different agencies. Beginning in AY98, a medical faculty member (ADAF clinical health psychologist) was tasked, on a part-time basis, to develop a comprehensive executive wellness program. This program seeks to supplement, not supplant or duplicate, extant programs offered through the base HAWC. Rather, its focus is on impacting the ACSC curriculum. The most notable progress has been that of coordinating "leadership-related" activities into a wellness working group and creating an initial awareness among ACSC and AU leadership about the importance of wellness. Dean- and commandant-level support for an expanded program is increasing as a result.

Specific educational opportunities aimed at staff and students have included optional "power lunches" in which guest speakers presented wellness-related topics. Approximately 13 percent of the faculty/student body participated. An invited presentation was delivered by the Air Force Surgeon General on USAF medical service and wellness issues important to future leaders. Other related programs have been offered (i.e., time management, anxiety management for cycle ergometry, etc.). A motivational software (fitness tracking) program was purchased and is available on the LAN; approximately 15 percent of the ACSC population has accessed it.

Plans for the AY99 program are currently in progress. The Leadership and Command Course will be expanded to integrate some wellness presentations. The part-time wellness

coordinator position has been expanded to half-time; and two additional medical officers have been hired as faculty and will work part-time in the program. To this point, no needs assessment has been accomplished to establish baseline data and identify common areas of interest and/or needs. The "First 50," or the class senior leadership, was surveyed about their participation levels in offered programs and areas of interest for the AY98 and AY99 school years. This information may or may not be representative of the class majority, but indicated intent in the construction of current programs and an expansion into new services.

Other unique factors exist in relation to the ACSC population. Based on AY98 demographics, the average age is 38-39 years, 90 percent are male, and 77 percent have at least one family member (the average number of those that accompany the member is unknown). All students (and many of the faculty) are of the same rank, and more than 73 percent of U.S. students have a master's degree or higher. Due to the extensive curriculum and relatively short-tour length (10 months), student schedules are demanding and fairly inflexible. Personal time is frequently limited during and after duty hours. Stress, while reduced from most operational assignments, is present in this highly competitive academic environment. The main stressors are balancing school and family obligations, the assignment process, and managing two moves (PCS) within one year.

Most of the students are not cognizant of the wellness activities offered at ACSC, ¹⁸ possibly due to the newness of the wellness program and its phased roll-out during AY98. Even more are unaware of wellness programs offered by the local base HAWC and some have stigmatized it to be only associated with the annual cycle ergometry test and the mandatory weight management program. Casual conversations indicated that a large number of students appear unaware of how

their individual services are addressing health promotion. This demonstrates a definite gap of knowledge for commanders/leaders who should be using and supporting such programs.

Similar to most Air Force bases, Maxwell AFB has both a HAWC (in the development and implementation phase) and a fitness center. These facilities are not co-located and are separated from the academic circle. The fitness center has expanded hours of operation, however, the HAWC is open only during normal duty hours which does not make its services as conducive for the school population. In addition, these programs are designed by the Air Force to be a "broad brush" approach to reach out to a heterogeneous population (enlisted, officers, civilians, and family members). Their content and presentation level is directed towards the lowest educational level and age group represented, normally being an airman basic level. With the assigned staff and resources, these base-level programs are already heavily tasked without adding the large ACSC population (in addition to the other PME students assigned to Air University). Chain-of-command may also become an issue when considering the implementation or coordination of wellness activities for ACSC. The HAWC and fitness center fall under control of the installation commander while ACSC reports directly to Air University. In that, the curriculum and workings of ACSC can most efficiently be understood and effected by an internal element.

The bottom line: a prime opportunity to promote wellness within the military exists within ACSC. The academic population and environment are "ripe" for a cultural change.

¹ Robert L. Taylor, and William E. Rosenbach, ed., *Military Leadership* (Boulder, CO: Westview Press, 1996), 1.

² Ibid., 109.

³ Ibid., 164-170.

⁴ Ibid., 1.170, 207.

⁵ Ibid., 1.

- ⁶ Russell E. Glasgow, Kevin D. McCaul, and K. John Fisher, "Participation in Worksite Health Promotion: A Critique of the Literature and Recommendations for Future Practice," *Health Education Quarterly*, vol. 20, no. 3 (Fall 1993): 398.
- ⁷ Col Timothy T. Timmons, *Commanding an Air Force Squadron* (Maxwell AL: Air University Press, 1993), 49.
- ⁸ Gen John M. Shalikashvili, chairman of the Joint Chiefs of Staff, *Joint Vision 2010* (Washington D.C.: Joint Chiefs of Staff, Department of Defense, n.d.), 1.
- ⁹ Lt Col William C. David, "Preparing a Battalion for Combat," *Infantry*, May-June 1995, 26-30.
- Gen Michael E. Ryan, chief of staff, U.S. Air Force, "Tomorrow's Air Force—A Quality Force," address to the Air Force Quality Symposium, Maxwell AFB, AL, 16 October 1997.
- ¹¹ CAPT Robert L. Brawley, director for preventive medicine and health promotion, U.S. Naval Environmental Health Center, "Health Promotion: The Paradigm Shifts," address at the Cooper Institute Health Promotion Director Training, Pearl Harbor Navy Base, December 1996.
- ¹² "Air Command and Staff College (ACSC)," fact sheet sent in AY 1998 Welcome Package; available from webmaster%dtt%acsc@acscsvr2.au.af.mil.
- ¹³ "Air Command and Staff College (ACSC) Handbook," (Maxwell AFB, AL: ACSC, Air University, AY 1998), 1.
 - ¹⁴ "ACSC Fact Sheet."
 - ¹⁵ "ACSC Program Evaluation," prepared by Maj Marlin K. Moore, 12 February 1998.
 - ¹⁶ "ACSC Executive Wellness Survey," prepared by Maj Marlin K. Moore, Fall 1997.
- ¹⁷ "Air Command and Staff College Resident Class AY98 Demographics," Maxwell AFB, AL: ACSC, Personnel Administration Office, 19 September 1997.
 - ¹⁸ "ACSC Executive Wellness Survey."

Chapter 4

Conclusions: The Time is Now

Neither a wise man nor a brave man lies down on the tracks of history to wait for the train of the future to run over him.

—Dwight D. Eisenhower

The connection between lifestyle and current health status, future health states, and mortality has been empirically demonstrated over the past few decades. Data from military surveys illustrates the fact that its population is not exempt. Numerous other sources expound on the multiple tangible and intangible benefits that wellness programs can provide. The current force structure and fiscal restraints make these benefits even more desirable for the military. Realizing how prevention will affect total force readiness, the DOD and service senior leaderships have begun to push the wellness concept and its various programs for implementation.

It has been the author's experience, however, that although support appears strong from the strategic level (via DOD and service policy and directives), it is not always comparable at the lower operational and tactical levels. Most frequently observed is that levels of leadership in between make "modifications" or designate different priorities that take precedence (usually all within their authority to do so). The necessary resources (facilities, equipment and supplies, trained staff, marketing, etc.) or support to accomplish partial or full program implementation may or may not be assigned. Along with anticipated logistic problems, this has the potential to seriously degrade program integrity, personnel acceptance, and overall efficacy.

Though not perfect, definite progress is being made. Nonetheless, there remain further opportunities to build upon the current structure. The proposed thesis suggests this could be accomplished by convincing military commanders and leaders to understand and role model the concepts of wellness and fitness. Their positive influence could facilitate the spread of the "wellness vision" throughout the larger military organization. Popular leadership views provided backing for this concept. With the thesis supported, the two research questions were considered.

The first question asked if ACSC is an appropriate environment to prepare leaders for this role. It rapidly becomes apparent that this population of future commanders/leaders is an excellent target to focus efforts on. A relatively contained and academic environment, with an already supportive command structure, makes this an ideal site in which to provide wellness intervention. If successful, the potential outcomes would be beneficial to individuals, their family members, and the overall "business" of the organization. Furthermore, the immediate connection of ACSC alumni to leadership roles extends the potential outcomes to the forces in general, promoting total force and combat readiness.

That leads to the second research question which asked, if the research thesis and first question are supported, what type of wellness program would be most appropriate for the targeted population and to achieve the objective and desired end state? Considering the location of ACSC on an Air Force base, the general courses of action (COA) available include: 1) Total reliance on the pre-established HAWC and fitness center programs, 2) Reliance on existent HAWC\Fitness center programs and provision of additional wellness activities to supplement the areas of concern/interest that are not addressed by them, or 3) Selection of a different conceptual health promotion model and development of an ACSC-based program specifically engineered towards this targeted population/environment. Current literature does not support or suggest that

there is one perfect solution. Since no environment is identical to ACSC and none of these courses of action have been attempted, it is difficult to determine in advance which approach would be most successful.

However, based on the health promotion program models' advantages and disadvantages, COA #1 appears to be the least likely to succeed. These Air Force-mandated programs are structured, limited in resources, and cannot offer ACSC the necessary accessibility and flexibility required by such a large group with a rigid academic schedule. In addition, their (Community-Based Model) "one-shoe-fits-all" approach is not considered the most desirable for a relatively homogeneous, mature and professional-level population. Though providing a variety of wellness activities, these programs cannot be expected to meet all of the targeted population's needs nor can they purposely seek out or "cater to" the ACSC population. Participation would be totally dependent upon interested individuals to seek out the services, and necessary peer group and organizational support systems would be lacking. These factors all create barriers to positive behavioral changes. On the other hand, if cost, space, or other resources was an issue for ACSC, this is the only COA that would require no expenditures or organizational changes by the school.

COA #2 is a more definite possibility and is the direction in which the current executive wellness program is proceeding. With this approach, additional wellness offerings (based on a needs analysis and organizational goals) could be offered to the ACSC population to address their unique risk factors/interests/concerns. More individualized attention, along with increased availability and accessibility, would increase the rates of participation and potential behavioral change. Still, this may apply to the internally offered elements only; because the reliance on the HAWC and fitness center for the core of the wellness program would once again present the barriers listed in COA #1. Consequently, fragmentation of the program may reduce interest and

participation. This approach would be the next least "costly" for ACSC. Only one full-time faculty member would be required to act as a wellness coordinator for the supplementary offerings and to promote awareness of the other available program elements. Since the school already has training areas, little (if any) structural changes would be required. Resource materials would be needed only for the in-house portions. As far as the organizational culture goes, the more positive changes to incorporate wellness, the better.

COA #3 has the greatest potential to achieve the desired results. It would provide ACSC complete control of their wellness program and allow them to put into place all of the key elements and positive practices described in chapter two. A combination of the Corporate (Worksite) Model and the Executive Model most closely describe the ACSC environment. These models have produced the best-documented results in civilian business. Within the military, the AWC, an academic environment very similar to that of ACSC, has demonstrated successful outcomes using these concepts. Internal coordination of the entire program would make it possible to direct the activities towards the specific health risks/concerns/interests of the target population, as well as to fully integrate them into the curriculum and schedule. The majority of the wellness activities would be offered on-site, granting direct accessibility and flexibility to students/staff. The cultural change would begin with the commitment of ACSC leadership to merge the program into its mission and goals, allocate resources for development and maintenance of the program, and holds unlimited potential from there. This vision would be easily observed and the "investment" into the student body and faculty perceived positively. A supportive climate and change in cultural norms is likely to result as participation increases.

It is the author's recommendation that ACSC provide a comprehensive wellness program using the Corporate-Executive Model, coupled with unique educational approaches and services

offered through a Supportive Environment (Full Service Site) Model. With that, emphasis would be placed on improving the health and fitness for all members utilizing promotional events, health education strategies, group and one-to-one wellness counseling, health risk profile and fitness assessments, and various kinds of competitions and support programs. The idea is to maximize on this sole opportunity with such a unique and influential "leadership" population. It involves bringing the program to the worksite and population (versus making them seek it out) and making it so available and "attractive" that students and faculty will get involved. Once their interest is drawn to one area, individuals are more likely to participate in other areas. The more consistent the participation, the more likely that positive behavioral changes will occur. In addition, the relationship of wellness to readiness and leadership could be integrated into the formal curriculum, demonstrating the substantiality of the concepts. Education on the type of wellness resources (i.e., HAWCs, fitness centers, mental health services, etc.) available to leaders/commanders, and how they can utilize them for the future benefit of their units/troops, will also be provided. This combination would provide ACSC with a dynamic program most appropriate for accomplishing both short-term benefits and the long-term objective.

Unfortunately, this type of program would come at a higher cost to the organization and require more planning. Some facility changes may be required depending on the breadth of the program. A full-time trained staff (at the minimum a certified health promotion coordinator/counselor, an exercise physiologist or equivalent, and administrative support) would be essential to implement a successful and credible program. Additional resource materials would also be necessary. Due to limited organizational assets, this could be viewed as an disadvantage. On the other hand, if the expected return on investment is considered and valued, this converts into an advantage for the organization and for the military as a whole.

The fact that this COA contrasts dependence on the USAF's premier HAWC concept may result in some resistance locally and up the chain-of-command. It is the author's belief, however, that a well-supported argument exists in showing that the HAWC may not be as suitable in this academic setting as it is in the operational unit environments. This is not to indicate that the HAWC programs are not valuable or should not be utilized at all, rather they are superb resources and complimentary in this COA. If the HAWC or fitness center has available resources that can provide any of the desired health promotion elements, while meeting scheduling requirements and appropriate educational level, they should be utilized. In turn, the ACSC program/professional wellness staff would be able to provide invaluable resources to the local HAWC and other Air University agencies.

Bottom line, this an opportunity and challenge for ACSC (representing the larger interests of DOD) "to adopt and adapt the lessons of the private sector in order to maintain a competitive edge in the rapidly changing global environment." As with any "business" venture, short- and long-term strategic planning will be the first step. This paper provides some preliminary research and information to assist in this process. Other priorities should include gaining management commitment, an organizational assessment of corporate goals and available resources, and a population needs assessment. Valuable lists of health promotion/wellness resources and references for use in planning and implementing an organizational program are included in the biographical entries marked with an asterisk

Go forth in wellness and spread the vision!

¹ "Improving Marketing Strategies For Wellness," *Marketing Health Services*, vol. 17, no. 2 (Summer 1997): 30.

² Hon. William S. Cohen, secretary of defense,"Report of the Quadrennial Defense Review," *Joint Force Quarterly (JFC)*, Summer 1997, 13.

³ Healthy, Wealthy & Wise: Fundamentals of Workplace Health Promotion, 3rd ed. (Omaha, NE: Wellness Councils of America, 1995), 94.

⁴ Jean Storlie, William B. Baun, and William L. Horton [Association for Worksite Health Promotion]. *Guidelines for Employee Health Promotion Programs* (Champaign, IL: Human Kinetics Publishers, 1992), viii-ix.

Glossary

ACSC Air Command and Staff College

AU Air University
AWC Air War College
AY Academic Year

CDC Centers for Disease Control and Prevention

DOD Department of Defense

HAWC Health and Wellness Center

ISS Intermediate Service School (PME)

OPHSA Office for Prevention and Health Services Assessment

PME Professional Military Education

SOS Squadron Officer School SSS Senior Service School (PME)

USAF United States Air Force

fitness/physical fitness. The ability to perform muscular work satisfactorily. An individual develops fitness by following an exercise training program. One key subset of wellness; physical fitness contributes to the level of health and wellness of an individual, however, in itself is not a guarantee.

health. A state free of unnecessary disease and premature death.

health promotion. The science and art of helping people change their lifestyle to move toward a state of optimal health. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, change behavior and create environments that support good health practices.²

high-risk behaviors. Personal habits or lifestyle choices that directly contribute towards premature morbidity and mortality. Examples include tobacco use, physical inactivity, overnutrition, uncontrolled high blood pressure, and alcohol use.³

wellness. The process of adapting patterns of behavior that lead to improved health and heightened life satisfaction.⁴

wellness (or health promotion) program. Systematic efforts of an organization to enhance the wellness of individuals through education, (voluntary) behavioral change, and cultural support. It involves reducing their health risks. For an organization, it may include creating and implementing prevention-related policies, assessing organizational structures, or altering facilities to establish an environment that supports good health practices.

Notes

¹ Michael P. O'Donnell and Jeffrey S. Harris, *Health Promotion in the Workplace*, 2nd ed. (Albany, NY: Delmar Publishers, Inc, 1994), 246.

² Ibid., xi.

³ Ibid., 6-7.

⁴ Jean Storlie, William B. Baun, and William L. Horton [Association for Worksite Health Promotion]. *Guidelines for Employee Health Promotion Programs*. Champaign, IL: Human Kinetics Publishers, 1992.

⁵ Ibid.

Bibliography

- "ACSC (Air Command and Staff College) Executive Wellness Survey Results." Prepared by Maj Marlin K. Moore, Fall 1997.
- "ACSC Program Evaluation." Prepared by Maj Marlin K. Moore, 12 February 1998.
- "Air Command and Staff College (ACSC)." Fact Sheet sent in AY 1998 Welcome Package. Available from webmaster%dtt%acsc@acscsvr2.au.af.mil.
- "Air Command and Staff College (ACSC) Handbook." Maxwell AFB, AL: ACSC, Air University, AY 1998.
- "Air Command and Staff College Resident Class AY98 Demographics." Maxwell AFB, AL:, ACSC, Personnel Administration Office, 19 September 1997.
- Air Force Instruction (AFI) 40-101. Health Promotion Program, 3 December 1997.
- Air Force Policy Directive (AFPD) 40-1. Health Promotion, 21 March 1994.
- "Air University: Home of Air Force Professional Military Education." USAF Fact Sheet. Maxwell AFB, AL: 42nd ABW Public Affairs Office, 15 April 1997. On-line. Internet, 5 February 1998. Available from http://www.au.af.mil/au/fs97-01.html.
- AWC(Air War College) Executive Wellness Center, AY 1997. Prepared by Maj Bruce E. Weaver and Kim Sport. Maxwell AFB, AL: Air War College, Air University, 1996.
- AWC(Air War College) Executive Wellness Center, AY 1998. Prepared by Maj Bruce E. Weaver and Kim Sport. Maxwell AFB, AL: Air War College, Air University, 1997.
- "AWC (Air War College) Executive Wellness Program Evaluation, AY 1997." Prepared by AWC Office of Evaluation, November 1996.
- "AWC (Air War College) Executive Wellness Program Evaluation, AY 1998." Prepared by AWC Office of Evaluation, March 1998.
- Army Regulation (AR) 600-63. Army Health Promotion, 17 November 1987.
- Bennis, Warren. *On Becoming A Leader*. Reading, MA: Addison-Wesley Publishing Company, 1995.
- Brawley, CAPT Robert L., director for preventive medicine and health promotion, U.S. Navy Environmental Health Center. "Health Promotion: The Paradigm Shift." Address. Cooper Institute Health Promotion Director Training, Pearl Harbor Navy Base, December 1996.
- Bray, Robert M., et al. 1995 Department of Defense Survey of Health Related Behaviors Among Military Personnel. RTI/6019/06-FR. Research Triangle Park, NC: Research Triangle Institute, December 1995.
- Bray, Robert M., Larry A. Kroutil, and Mary Ellen Marsden. "Trends in Alcohol, Illicit Drug, and Cigarette Use among U.S. Military Personnel: 1980-1992." *Armed Forces & Society*, vol. 21, no. 2 (Winter 1995): 271-293.
- Brockhoff, Anne. "Studies Now Supporting Value of Wellness Efforts." *Kansas City Business Journal*, vol. 15, no. 40 (20 June 1997): 25-26.
- Clifford, Francis W., and Robert J. Diaz. "Wellness On Tap at Coors." *Financial Executive*, March/April 1995, 21-24.

- Cohen, Hon. William S., secretary of defense. "Report of the Quadrennial Defense Review." *Joint Force Quarterly (JFC)*, Summer 1997, 8-14.
- Collins, Barbara S., and CDR Susan H. Custis. "Health Promotion in a Shrinking Military: The Call for Structural Integration and a Conceptual Systems Approach." *Military Medicine*, vol. 158 (June 1993): 386-391.
- Cooper, Karen. "A Healthier, More Fit Force." Sergeants, March 1996, 10-13.
- "Corporate Wellness on the Rise." American Fitness, vol. 15, no. 2 (March/April 1997): 15.
- Cross, Col Gerald M., DOD Subcommittee on Health Promotion Program Evaluation. Memorandum. To Edward D. Martin, Office of the Assistant Secretary of Defense for Health Affairs. Subject: Report of the Subcommittee on Health Promotion Evaluation, 17 August 1992.
- David, Lt Col William C. "Preparing a Battalion for Combat: Physical Fitness and Mental Toughness." *Infantry*, May/June 1995, 25-30.
- "Defense Department Issues 'Operation Be Fit' Logo." *News Release* (Office of Assistant Secretary of Defense), 11 February 1998. On-line. Internet, 17 February 1998. Available from http://www.defenselink.mil/news/Feb1998/b021.1998_bt061-98.html.
- Department of Defense (DOD) Directive 1010.10. *Health Promotion* (with Changes 1 and 2), 11 March 1986.
- Erfurt, John C., Andrea Foote, and Max A. Heirich. "Worksite Wellness Programs: Incremental Comparison of Screening and Referral Alone, Health Education, Follow-Up Counseling, and Plant Organization." *American Journal of Health Promotion*, vol. 5, no. 6 (July/August 1991): 438-448.
- Erfurt, John C., et al. "Improving Participation in Worksite Wellness Programs: Comparing Health Education Classes, a Menu Approach, and Follow-Up Counseling." *American Journal of Health Promotion*, vol. 4, no. 4 (March/April 1990): 270-278.
- Fogleman, Gen Ronald R., chief of staff, U.S. Air Force. "Military Readiness and Medical Care: A Service Chief's Perspective." Address. Department of Defense TriCare Conference, Washington D.C., 13 January 1997.
- Franczyk, AnneMarie. "The Answers to Wellness Start at Work," *Business First-Western New York*, vol. 13, no. 36 (16 June 1997): 6-B.
- Glasgow, Russell E., Kevin D. McCaul, and K. John Fisher. "Participation in Worksite Health Promotion: A Critique of the Literature and Recommendations for Future Practice." *Health Education Quarterly*, vol. 20, no. 3 (Fall 1993): 391-408.
- Harrison, Col Carlisle, Jr., 42nd Medical Group commander, and Capt Teresa R. Birmingham, 42nd Medical Group health promotion manager. "Health Promotion Working Group." Slide Presentation to 42nd ABW commander and staff, Maxwell AFB, AL, Fall 1997.
- *Health Promotion Director (HPD) Certification Training Program, 1996. Dallas, TX: The Cooper Institute For Aerobics Research, 1994.
- *Healthy, Wealthy & Wise: Fundamentals of Workplace Health Promotion. 3rd ed. Omaha, NE: Wellness Councils of America, 1995.
- "Improving Marketing Strategies For Wellness." *Marketing Health Services*, vol. 17, no. 2 (Summer 1997): 30-39.
- Kasprzyk, Danuta, and Crystal Freeman [Battelle Centers for Public Health Research and Evaluation]. "Best Practices in Health Promotion." Technical Report, Version 1. Brooks AFB, TX: Office for Prevention and Health Services Assessment (OPHSA), March 1997.
- Lewis, Deborah. "Why Wellness Programs Fail." Financial Executive, March/April 1995, 26-29.

- Marine Corps Order (MCO) 6200.4. *Marine Corps Health Promotion Program: Semper Fit 2000*, June 1997.
- Marshall, Herman. "Fit to Be Tried: A Proposal to Shape Up the Military Community." *Interservice*, Spring 1997, 22-26.
- Matthews, William. "How Fit Are Reservists?" *Air Force Times*, vol. 54, no. 45 (13 June 1994), 24.
- O'Donnell, Michael P., and Jeffrey S. Harris. *Health Promotion in the Workplace*. 2nd ed. Albany, NY: Delmar Publishers, Inc, 1994.
- Office of the Chief of Naval Operations Instruction (OPNAVINST) 6100.2. *Health Promotion Program*, 25 February 1992.
- Opatz, Joseph P, ed. [Association for Worksite Health Promotion]. *Economic Impact of Worksite Health Promotion*. Champaign, IL: Human Kinetics Publishers, 1994.
- Paige-Dobson, CDR Beverly, and Capt Grant Frey. "Military Readiness: A Semper Fit Priority," 1995.
- Pelletier, Kenneth R. "A Review and Analysis of the Health and Cost-Effective Outcome Studies of Comprehensive Health Promotion and Disease Prevention Programs." *American Journal of Health Promotion*, vol. 5, no. 4 (1991): 311-315.
- Pelletier, Kenneth R. "A Review and Analysis of the Health and Cost-Effective Outcome Studies of Comprehensive Health Promotion and Disease Prevention Programs at the Worksite: 1991-1993 Update." *American Journal of Health Promotion*, vol. 8, no. 1 (September/October 1993): 50-62.
- Pelletier, Kenneth R. "A Review and Analysis of the Health and Cost-Effective Outcome Studies of Comprehensive Health Promotion and Disease Prevention Programs at the Worksite: 1993-1995 Update." *American Journal of Health Promotion*, vol. 10, no. 5 (May/June 1996): 380-388.
- Pokorski, LCDR Thomas L. "Worksite Health Promotion: Rationale for Military Implementation," *Military Medicine*, vol.157 (August 1992): 426-430.
- Programming Guidance Letter (PGL) 94-8. "Establishing Health and Wellness Centers." Washington D.C.: HQ U.S. Air Force, 1 October 1995.
- Ramsey, Russell W. "Fitness and Warfighting." Air Force Magazine, April 1990, 106-107.
- Roadman, Lt Gen Charles H., II, surgeon general, U.S. Air Force. Address. Air Command and Staff College Class of 1998, Maxwell AFB, AL, 27 January 1998.
- Ryan, Gen Michael E., chief of staff, U.S. Air Force. "Tomorrow's Air Force—A Quality Force." Address. Air Force Quality Symposium, Maxwell AFB, AL, 16 October 1997.
- Secretary of the Navy Instruction (SECNAVINST) 6100.5. *Health Promotion Program*, 17 September 1986.
- Shalikashvili, General John M., chairman of the Joint Chiefs of Staff. *Joint Vision 2010*. Washington D.C.: Joint Chiefs of Staff, Department of Defense, n.d.
- Sims, Miriam. "Wellness Programs Can Help Your Company's Health." Washington Business Journal, vol. 15, no. 50 (April 1997): 26-30.
- Storlie, Jean, William B. Baun, and William L. Horton [Association for Worksite Health Promotion]. *Guidelines for Employee Health Promotion Programs*. Champaign, IL: Human Kinetics Publishers, 1992.
- Sullivan, Bernard J. "Program Takes Wellness to a Higher Level." *San Antonio Business Journal*, vol. 11, no. 30 (5-11 September 1997): 36-43.

- Taylor, Robert L, and William E. Rosenbach, ed. *Military Leadership*. Boulder, CO: Westview Press, 1996.
- Timmons, Col Timothy T. Commanding an Air Force Squadron. Maxwell AFB, AL: Air University Press, 1993.
- U.S. Department of Defense. *Promoting Health 2000: DOD Health Promotion and Disease Prevention Objectives*. Washington D.C.: Office of the Assistant Secretary of Defense for Health Affairs, May 92.
- U.S. Department of Health and Human Services. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. DHHS Publication No. (PHS) 91-50212. Washington D.C.: Public Health Service, 1991.
- U.S. Department of Health and Human Services. *Healthy People 2000 Review 1997*. DHHS Publication No. (PHS) 98-1256. Washington D.C.: Public Health Service, 1997.
- U.S. Department of Health and Human Services. *Healthy People 2000: Midcourse Review and 1995 Revisions*. Washington D.C.: Public Health Service, 1995.
- U.S. Department of Health and Human Services. 1996 Surgeon General's Report on Physical Activity and Health. Washington D.C.: Public Health Service, July 1996.
- Weaver, Maj Bruce E. "Background Paper on the Air War College (AWC) Executive Wellness Center," 1 May 1997.
- Wellness Councils of America (WELCOA). "Wellness Works." On-line, Internet, 17 November 1997. Available from http://www.welcoa.org/works1.htm.
- Widnall, Hon. Sheila E., secretary of the U.S. Air Force. "Readiness and the Medical Service Mission." Address. Medical Group Staff Training Symposium, Leesburg, VA, 20 March 1995.
- Widnall, Hon. Sheila E., secretary of the U.S. Air Force, and Gen Ronald R. Fogleman, chief of staff, U.S. Air Force. Memorandum. To ALMAJCOM/CC. Subject: Establishing Health and Wellness Centers, 22 January 1996.
- Wilhelmsen, Lars. "Book Review—Prevention of Myocardial Infarction." *The New England Journal of Medicine*, vol. 336, no. 5 (30 January 1997): 383.

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